



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Species, and a New Subgenus of *Peromyscus* from Mexico and Guatemala; A New Genus (*Neotomodon*), and Three New Species of Marine Rodents from the Mountains of Southern Mexico. Miller, J. S., Jr.: A New Rabbit from Margarita Island, Venezuela. Palmer, T. S.: Notes on the Nomenclature of the Cheiroptera.

BOTANY.

Pfeffer's Physiology of Plants.¹ — Only the first of the two volumes of Pfeffer's *Pflanzenphysiologie* has yet appeared, the second being still in preparation. So thoroughly is this book being rewritten that it is very likely that the translations of the first volume — the French translation to be issued by a Paris publisher unaided by any subvention, I believe, and the English one to be issued by the Clarendon Press of Oxford — will be out before the second volume of the German edition is ready.

The plan of the work is the same as that of the first edition, the author confining himself to pure physiology, instead of enlarging the scope of the book to include that branch of physiology, œcology, or making more than passing allusions to the applications in agriculture, brewing, medicine, and surgery, of facts discovered and elucidated by plant physiologists. The book is a handbook, not a textbook; a critical review of the contributions to plant physiology, and a statement of the facts as they appear in the light of past discoveries and present hypotheses. It is by no means a compilation, for in almost every part of the field Pfeffer has worked, or led his students to work, fruitfully. This fact lends additional value to the critical discussions of the work of other and sometimes disagreeing investigators, and to the appreciation of the difficulties in the way of making experiments, and of drawing conclusions therefrom, — an appreciation which gives deeper insight into a problem as well and lends patience to its discussion.

In estimating the value of the book, for the facts, new and old, brought together for the first time in it, account must be made in equal amount of the skill and clearness with which defects in argument, faults in conclusion, and overzeal in theorizing are pointed out.

¹ *Pflanzenphysiologie*. Ein Handbuch der Lehre vom Stoffwechsel und Kraftwechsel in der Pflanze. Von Dr. W. Pfeffer. Zweite völlig umgearbeitete Auflage. Bd. I, Stoffwechsel. Leipzig, 1897, Wilhelm Engelmann.

Whatever may be thought of the generally involved style of Pfeffer's exposition — and this has been complained of for years by his own countrymen quite as much as it has been deplored by others — nothing could be clearer and crisper than some of his critical remarks. He goes directly to the point, and states it clearly. Regarding the exposition, I believe that it, too, is clearer and simpler than in the first edition and than in many of Pfeffer's papers; but it can never be "easy reading" for any foreigner because of the detail of fact and theory into which Pfeffer goes in his treatment of every topic.

What DeBary's *Comparative Anatomy of the Vegetative Organs of the Phanerogams and Ferns* was intended to be and what it has been for plant anatomy, Pfeffer's *Handbuch* was in the first edition, and cannot fail to continue to be in the second, for plant physiology. In the survey of what has been discovered are pointed out many of the problems which remain to be solved. Thus knowledge is broadened and zeal for research is kindled and directed.

The first volume is devoted to the consideration of the subject announced by the title, namely, "Stoffwechsel," or metabolism in the broad sense. Before treating of this, however, the author presents three chapters covering nearly seventy-five pages. The first is an introductory one broadly stating the object of physiology; — "to study the manifestations of life as such, to trace these back to their nearer and further causes, and to become acquainted with these in their significance for the organism"; the second is devoted to a discussion of the cell from the morphological-physiological standpoint; the third deals with the phenomena of swelling as indicating molecular structure. The remaining five hundred and fifty pages in this volume are occupied with the subject of nutrition, — respiration (and the fermentations dependent upon the respiration of certain organisms) being considered as a part of the destruction processes concerned in the nutrition of the organism.

Within the limits of a review, any adequate treatment in detail of the contents of this volume is impossible. The student of physiology, whether he use animals or plants as the subjects of his observation, will find the book rich in facts, broadening in its masterly treatment of the conceptions to be built upon these facts, and inspiring in the high, enthusiastic, yet controlled devotion of the author to the subject to which he has so fruitfully devoted his life, and in which, as teacher and writer, he has led so many others.

GEORGE J. PEIRCE.